DOCUMENT RESUME

ED 283 620 PS 016 706

AUTHOR Jackson, Jacquelyne Faye
TITLE Normative Features of Black Infant-Parent Attachment Relationships.
SPONS AGENCY National Inst. of Mental Health (DHHS), Rockville, Md.
PUB DATE Jul 85
GRANT NIMH-1-R13-MH-36381-02
NOTE 16p.; Paper presented at the Conference on Empirical Research in Black Psychology (8th, Newark, DE, January 25-28, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Attachment Behavior; *Blacks; Exploratory Behavior; *Fathers; *Infants; *Mothers; Parent Child Relationship; Social Behavior; *Stranger Reactions

ABSTRACT

Characteristic patterns of infant-parent relationships were examined in a sample of Black infants presumed to be at low risk for psychopathological development. Infant responses toward parents and a stranger in a structured laboratory play session were analyzed to determine normative patterns of Black infant-parent attachments. Infant exploratory behavior revealed indications of positive infant-parent relationships. Absence of parent affiliative responses was found and interpreted as an indicator of infant self-assurance in an unfamiliar setting. Findings are (1) discussed as indications of psychologically sound normal Black infant-parent relationships; (2) seen as distinguishing Black infants' behavior from that of White infants as reported in child development literature, and (3) held to be potentially useful as behavioral standards for clinical assessments of Black infants considered at risk for psychopathological development and of their families. (Author/BG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED283620

The Eighth Conference on Empirical Research

in

Black Psychology

January 25-28, 1984

University of Delaware, Newark, DE

Conference organizer:

Anderson J. Franklin, Ph.D.
Department of Psychology
The City College of the City
University of New York
Convent Avenue at 138th Street
New York, NY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jacquelyne Faye Jackson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

July, 1985
NIMH
Minority Center
Rockville, Maryland

PS 016706

BEST COPY AVAILABLE

The conference proceedings reported herein were supported by: NIMH Grant No. 1 R13 MH36381-02. Points of view or opinions stated do not represent or necessarily imply agreement by the agency or its staff.

Normative Features of Black Infant-Parent Attachment Relationships

Jacquelyne Faye Jackson
University of California, Berkeley

Abstract

Characteristic patterns of infant-parent relationships were examined in a sample of Black infants presumed to be at low risk for psychopathological development. Infant responses toward parents and an unfamiliar stranger in a structured laboratory play session were analyzed to determine normative patterns of Black infant-parent attachments. Infant exploratory behavior revealed indications of positive infant-parent relationships. Absence of parent affiliative responses were found and interpreted as indicators of infant self-assurance in an unfamiliar setting. Findings are discussed as: (1) indications of psychologically sound normal Black infant-parent relationships, (2) distinguishing Black infants' behavior from that of White infants reported in child development literature, and (3) potentially useful as behavioral standards for clinical assessments of Black infants considered at risk for psychopathological development and their families.

What are the affective qualities and infant response patterns that characterize normal Black infant-parent relationships? This question is the major concern of this paper.

Increasingly, psychologists and other human service professionals are being called upon to assess early child-parent relations as a preface to corrective interventions at the inception of life to promote development of sound emotional bases of personality. This development has been fueled by events such as the extension of early childhood education and day care programs down the age scale to infants, as well as the expansion of psychological services in clinical programs for high risk groups such as teen parents and families of abused children. Rarely acknowledged, however, is the fact that large numbers of Black infants and their families are affected by these developments. It is even less rarely acknowledged that when psychologists make judgments and recommendations that affect Black infants and their families, they are operating out of ignorance of normal patterns of infant-parent relationships among Blacks because of a dearth of research information on this group. The research that will be reported is the yield of one attempt to begin to fill this void.

In child development the emotional bonds between infant and parents are considered the key factors determining early affective development. In line with this, the most widely referenced theory of early infant-parent relationships and the associated body of research were used as basic points of reference for examining Black infant-parent relationships. That theory-research complex is the ethological conception of the nature of infant attachments and genesis of affective life (Bowlby, 1969; Ainsworth, 1967, 1969; Ainsworth & Bell, 1970; Ainsworth, Blehar, Waters, & Wall, 1978). Its major specifications are, in brief:

1. Capacity for emotional attachment is a biologically endowed trait of every human being, that is manifest in a relationship of an individual to another person. When activated, attachment is expressed through an individual's behavior in relation to the person to whom he or she is attached. When unactivated there may be no visible signs of attachment.

2. In normal human development, attachment bonds are first established in infancy between infant and parents and emerge at about one year of age when the infant becomes capable of locomotion. Although several attachments may emerge, all infants have a biologically anchored inclination to form a superordinate attachment to one figure who is usually, but not necessarily, the care giving mother. That attachment figure functions as the emotional base from which the infant physically explores and learns about his or her environment and as the infant's refuge both emotionally and physically when distressed.

3. Affective responses and behavioral patterns that develop in the earliest phases of life, primarily in the infant-mother figure relationship, become prototypes of affective response inclincations and behaviors in relationships in subsequent childhood and adult life. Thus early attachment relationships are critical determinants of individual psychosocial functioning throughout life and psychopathology.

4. Most types of intense human affect first emerge during the formation, maintenance, rupture, and renewal of attachment relationships. Uncompromised, stable attachment bonds are the primordial source of feelings of security. Disruption or compromise of attachment bonds cause primordial anxiety, sorrow, and anger.

5. When a psychologically normal infant is composed and feeling unthreatened while in the presence of his or her attachment figure, attachment is expressed through physical and social exploratory play. When a normal infant is distressed or anxious, however, attachment is expressed through behavior that brings that infant into close proximity of and physical contact with the person who is the object of attachment.

6. Inclination to form attachments is a basic phylogenetically determined attribute. For this reason, the behavioral patterns that are expressions of psychologically sound attachments are the same for all racial and cultural groups.

The empirical research that supports attachment theory has relied overwhelmingly on one experimental method: i.e., the structured laboratory play session involving recurring brief separations of infant and parent (or parents) and infant encounters with a stranger. Based on attachment theory, the contention has been that alternations of short periods of simultaneous presence of infant and parent with periods of separation of the two precipitate attachment behaviors ensuing from composed as well as mildly distressed affective states. The encounters with the stranger that were built into such sessions were designed to provide an opportunity to compare infant response to an unfamiliar person with response to an attachment figure, as well as opportunity to examine infant sociability.

In delineating normative infant responses to separation-reunion play sessions, behaviors revealing apprehension and wariness in reaction to separation and parent affiliative reactions to reunion have been given more attention in evaluating the infant-parent relationship than those indicating composure and receptivity to exploration or play. Infants with strong affiliative responses toward reentering parents have been designated psychologically secure in their attachments, while those with nonaffiliative responses have been designated insecure in the infant-parent relationship (e.g., Ainsworth et al., 1978). Separation-reunion play sessions have come to be regarded as tests of the quality of infant-parent relationships because of the evaluative interpretation of infant behavior associated with such procedures. However, the norms for such procedures and criteria for interpreting them have been derived from study of White middle-class subjects exclusively.

The unsubstantiated theoretical contention of universality of sound patterns of attachment has led to use of separation-reunion laboratory play sessions with low-income and clinical samples of Black infants and young children (e.g., Clarke-Stewart, 1973; Bell cited in Ainsworth et al., 1978; Sameroff, Seifer, & Zax, 1982). Most often the result of such usage has been the characterization of Black children as more insecure in their relationships to their parents and more heavily burdened with incipient psychopathology than the White infants in the normative samples used to develop these evaluative instruments. In clinical settings use of separation-reunion play sessions with Black infant-mother pairs appears to be increasing because of the availability of expedient, academically accepted methods of assessing infant psychosocial status and coincident demand for psychological evaluation of high risk infants, many of whom are Black. This has led to an impending problem similar to a major problem in psychological assessment of older Black children and adults: Black behavioral patterns are evaluated on the basis of White middle-class values and standards, and differences are labeled deficits. This development highlights the need for exacting analysis of Black cultural modes of addresing infant attachment phenomena, and the pressing need for normative research information on Black infants who are being raised with cultural integrity. Specifically, laboratory research using separation-reunion

procedures with Black infants who, demographically, are not at risk for pathological development could provide valid criteria for evaluation.

The research that will be presented is part of a recently completed study of Black infants with working mothers (Jackson, 1983). Sociological and social psychological research in the last 15 years has shown that Black families with working wife/mothers provide an especially favorable social as well as economic environment for Black child rearing, even when children are under school age (Beckett, 1976; Grossman, 1982). Other research has suggested that Black single mothers who work are able to provide a more favorable social and economic environment for their children than their nonworking counterparts (Savage, Adair, & Friedman, 1978; McAdoo, 1980). Moreover, because of the long standing incidence of maternal employment in the majority of middle- and working-class Black families, infants with working mothers were considered typical of Black infants being raised under culturally representative circumstances who were also at minimal risk for pathological development.

The long standing reliance on multiple caretakers of infants and young children due, in part, to the practical demands of maternal employment, led to the supposition that the infant-mother attachment would not be the only important one for Black infants. For this reason infants' relationships to fathers, or father substitutes, as well as mothers, were central targets of the study. In sum, central objectives of the study were: (1) comparison of Black infant-mother and infant-father relationships to determine affective similarity or difference of infant modes of relating to two parents, (2) delineation of normative patterns of Black infant-parent relationships in terms of attachment behaviors in a structured separation-reunion laboratory play session, and (3) examination of Black infant sociability with a stranger in a laboratory setting to determine the effects of parent presence and absence on infant social responses.

Method

Subjects

Using birth records, infants born in northern Alameda County of the San Francisco Bay area with the following characteristics were identified: (1) both of the infant's parents were Black, (2) the mother was 19 years of age or older, (3) the mother had listed an occupation other than "housewife" as her usual occupation, and (4) no medical designation of organic damage or malformation appeared on the birth certificate. The mothers of those infants were contacted by letter and/or a phone call and those who were working or full-time students when their child was 12 months old were recruited for participation in the study. The recruitment process yielded a sample of 21 male and 16 female 12-month-old infants and their families. Thirty-two were from two-parent families and 5 had single mothers with a father substitute participating in the study (i.e., four female relatives and one fictive kin aunt). Occupational and educational information on the adult participants confirmed the expectation that the infants were from middle- and working-class families.

Setting

The play session transpired in a spacious 12.5 ft. by 16 ft. attractively decorated room. When the parents and infants were initially led into the room there was a set of toys on a rug in front of large wall-length windows in their immediate visual field. There were three adult-sized chairs near the rug for the parents and student-stranger who entered subsequently, and two child-sized chairs.

The session was videotaped through a one-way mirror by a camera placed in an adjoining room. When not in the playroom the parents were directed to the adjoining camera room, and thus were able to observe their child throughout the session.

Procedure

The session was composed of 13 three-minute episodes and was structurally designed by Kotelchuk (1976) to accommodate an infant, two parents, and a stranger in one session. The session entailed a pattern of exits and reentries

of parents that produced recurring sequences of two, one, and no parents present in the room; this was integrated with a pattern of entries and exits of a stranger that left the infant alone with the unfamiliar person during two episodes. In this study the stranger role was played by a Black female undergraduate student. The order of mothers' and fathers' exits and reentries was counterbalanced. Table 1 outlines the alternative structures of the procedure in terms of individuals present in the playroom during each episode.

Table 1

Departure Order/People Present in Playroom

Episode	Mother Departing First	Father Departing First
1	baby, mother, father	baby, mother, father
2	baby, father	baby, mother
3	baby, father, student	baby, mother, student
4	baby, student	baby, student
5	baby, student, mother	baby, student father
6	baby, mother	baby, father
7	baby, mother, father	baby, father, mother
8	baby, mother	baby, father
9	baby, mother, student	baby, father student
10	baby, student	baby, student
11	baby, student, father	baby, student, mother
12	baby, father	baby, mother
13	baby, father, mother	baby, mother, father

When the baby and parents were led into the room initially, the parents were directed to sit in chairs designated according to departure order, and to read a one-page review of instructions that had been verbally delivered before entry into the room. Parents were told to allow the infant to do what he or she elected to do and not to initiate or purposefully distract the child in the early, predeparture phase of the session. Parents were cued to leave the room either by a knock on the wall or verbal direction from the student. They were encouraged to respond to the child in whatever manner seemed natural to them, after returning to the room.

The two phases of the session in which the student-stranger participated consisted of two variations of one sequence of prescribed behaviors. The sequence specified that the student: (1) enter the room with an attractive object in hand, (2) adopt a friendly but initially reserved manner, (3) gradually initiate contact with the infant and playfully interact with him or her, (4) precipitate an event or situation that might be experienced as disconcerting to the infant, and (5) leave the room unobtrusively after having adopted a consoling and/or apologetic manner if the infant had been upset by anything that transpired while she was present. The purpose of this sequence was to make the student an unthreatening and attractive social novelty when the infant initially saw her, and to give the child an opportunity to initiate contact with her. The friendly demeanor that the student adopted throughout her time in the playroom was intended to encourage sociable responses from the infant, while the potentially disconcerting events were built into the student role to challenge infant composure and self-assurance. The potentially disconcerting event in the first phase of the student's presence in the session entailed offering the infant a clear plastic container that could not be opened by the child, with visible cookies in it; it was assumed that the frustration of not being able to get the cookies would be mildly upsetting to some children. The second potentially disconcerting event entailed a purposefully "accidental" popping of a balloon; it was assumed that the sudden noise of the explosion would be upsetting for some children.

Record Analysis

Each episode of the videotape of the play session was analyzed as a separate treatment condition. Ratings were made for one or more of the following infant behaviors in each episode: (1) exploratory activity, (2) sociability with the student-stranger, (3) distress in response to a parent's departure, (4) seeking proximity of a reentering parent, (5) maintaining physical contact with a reentering parent, (6) inattention to or avoidance of a reentering parent, and (7) resisting contact with a reentering parent. Rating scales for the first three variables were developed for this study. With minor modifications, rating scales for the last four variables were taken from normative studies of attachment behavior in White infants (Ainsworth et al., 1978).

Results

Comparison of Infant-Mother and Infant-Father Behaviors

A major question and focus of the research was whether Black infants held similar or dissimilar relationships to their parents with respect to attachment behaviors and effects of attachment relations on socialability. This question was initially addressed by correlating infant play session behaviors related to mothers with behaviors related to father for all of the seven variables rated (i.e,, exploration, distress, sociability, proximity seeking, contact maintaining, inattention/avoidance, and contact resisting). Pearson product-moment correlational tests revealed that all but one of the variable pairs were correlated and produced positive, moderate statistically significant correlation coefficients. Table 2 reports the results of these tests in summary form.

Table 2

Correlation Test Results for Parent-Specific Play Session Variables

Variable Pair Correlated (N = 37)	Statistic (r)	p
Exploration: Mother with Father	.42	.004
Distress: Mother with Father	.65	<.001
Sociability: Mother with Father	.38	.01
Contact Maintaining: Mother with Father	.34	.02
Contact Resisting: Mother with Father	.14	--
Inattention/Avoidance: Mother with Father	.42	.005
Proximity Seeking: Mother with Father	.66	<.001

To examine thoroughly the issue of comparability of parent-specific behaviors, a second set of statistical tests was performed to detect response bias toward a class of parents. This was done because of the observation that correlation of parent-specific scores on a variable did not preclude response bias toward mothers or fathers as a class, and in this respect dissimilarity of infant response to parents. To address this issue matched pair t-tests were performed to assess the magnitude and direction of differences in mother-related and father-related scores across subjects and for all seven variables. The results of this set of tests are presented in Table 3. The absence of a statistically significant t statistic indicates that there was no response bias toward mothers or fathers as a group for any of the variables rated in the play session.

Dynamics of Attachment and Sociability Behaviors

A second objective of the research was detection of normative patterns of Black infant response across the episodes of a structured separation-reunion laboratory play session. Toward this end the descriptive statistics for ratings of each variable in each of the 13 episodes of the play session were inspected

as a preliminary step to inferential statistical analyses. Inspection revealed unequal variances of summaries of variable scores for the episodes. Analysis of variance for repeated measures designs was the a priori choice of statistical technique but was discarded because equal variances across treatment conditions is a prerequisite. As an alternative, Friedman nonparametric procedures for within-subject ranking of data (Marascuilo & McSweeney, 1977) were used for analyzing changes in infant behavior in response to the experimental procedure.

Table 3

Match Pair *t*-Test Results for Parent-Specific Play Session Variables

Variable Pair (N = 37)	Mean of Differences	S.D.	Statistic *t*	Decision ($\alpha = .05$)
Exploration: Mother and Father	.13	1.35	.56	n.s.
Distress: Mother and Father	.14	.86	.96	n.s.
Sociability: Mother and Father	.16	1.85	-.53	n.s.
Contact Maintaining: Mother and Father	.14	1.46	-.56	n.s.
Contact Resisting: Mother and Father	.01	.42	-.10	n.s.
Inattention/Avoidance: Mother and Father	.28	1.35	-1.28	n.s.
Proximity Seeking: Mother and Father	.24	1.29	1.14	n.s.

Environmental exploration in excess of explicitly social behavior was the one type of behavior rated in all 13 episodes of the play session. Attachment theory specifies that presence of the primary attachment figure, in a sound infant-mother figure relationship, will facilitate infant exploration, while absence of that figure will curtail exploration. Hypothesizing sound infant-parent relations for the study sample and applying this proposition to the structure of the play session used in this study, the researcher projected oscillation in the level of exploration. The speculation was that exploration at the beginning of the session when both parents were present would start at a high point, but would gradually sink to a low point when both parents were absent. Inherent in this projection was the anticipation that the presence of the student-stranger would moderately depress exploration, either because infants would be drawn into sociable interaction with her instead of nonsocial exploration or because they would be intimidated by her and therefore would lack the self-assurance to explore. These deductions were coordinated and expressed statistically in a contrast for a quartic trend in exploration across the 13 treatments (i.e., episodes) of the play session. Table 4 gives a schematic presentation of what that contrast examined by indicating who was present in

Table 4

Scheme for Quartic Trend Contrast: Exploration Variable

People Present	Episode 1	2	3	4	5	6	7	8	9	10	11	12	13
Baby (B)	B	B	B	B	B	B	B	B	B	B	B	B	B
Parent #1 (1)	1	1	1				1				1	1	1
Parent #2 (2)	2				2	2	2	2	2				2
Student (S)			S	S	S				S	S	S		
Weights	99	-66	-96	-54	11	64	84	64	11	-54	-96	-66	99
Means	10.28	9.35	7.89	3.47	6.42	7.89	8.03	8.00	5.99	3.62	5.31	7.46	7.18

the playroom during each episode, what the coefficients for the contrast were, and the summary mean of the rank values for each episode. The original hypothesis for normative exploration was supported by a statistically significant result of

the contrast. Figure 1 presents a graph of the curvilinear function delineated by the quartic trend; the related one-tailed confidence interval obtained was $\hat{\psi} = 797.01 - 719.45$ (Var. $\hat{\psi} = 27901.81$, $\chi^2_{12;0.90} = 18.55$).

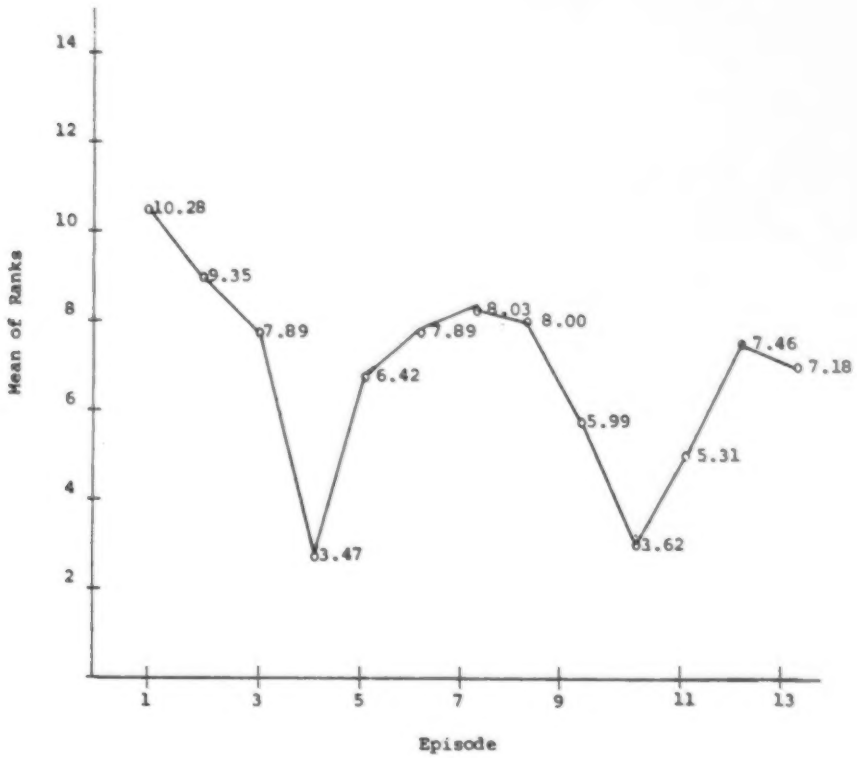

Figure 1. Graph of Quartic Trend in Exploration

A contrast comparison was made to investigate the infants' reactions to the student-stranger specifically. The question was, were the infants sociable or fearful, or were responses so individually variable that a normative response could not be detected? To address this question the contrast for the sociability variable was structured to compare infant sociability when a parent was present to sociability when the student and infant were alone together. However, there was no compelling theoretical basis for predicting a normative pattern of infant response. For this reason the hypothesis on which the contrast was based simple conjectured that sociability when a parent was present would differ from sociability when parents were absent, but no direction of effects was projected. Thus episodes 4 and 10 were compared as a set to episodes 3, 4, 9, and 11 as a set; in order, mean values for the rank scores of episodes 3, 4, 5, 9, 10, and 11 were 3.77, 3.81, 2.58, 3.65, 3.45, and 4,38. Statistically, the contrast was not significant; the related two-tailed confidence interval revealing this was $\hat{\psi} = -.14 \pm 3.56$ (Var. $\hat{\psi} = 1.14$, $\chi^2_{5;0.95} = 11.07$)

A contrast comparison was made to examine infant distress responses. For this contrast it was hypothesized that there would be more distress in response to a departing parent when the infant was left alone with the student than when one parent remained in the room after the other parent departed. The expectation was that this would be the only likely pattern of distress, if a normative pattern could be found. Reflecting this hypothesis, mean of the rank values for the distress variable in episodes 2 and 8 were compared as a set to mean values for episodes 4 and 10; the mean values for episodes 2, 4, 8, and 10 were 1.96, 2.64, 2.49, and 2.97, respectively. A statistically significant increase

in distress was found for the both parents absent condition in comparison to the one parent absent condition. Calculations that were refined by a correction for tied rank values, because of the statistical marginality of initial results, verified the initial findings; the one-tailed confidence interval for the distress contrast was $\hat{\psi} = -1.16 + 1.08$ (Var. $\hat{\psi} = .19$, $\chi^2_{3:0.95} = 6.25$).

Infants' proximity-seeking behavior, as an immediate reaction to parents' reentries into the playroom, was examined in episodes following those where no parent had been present compared to those where one parent had been present. The expectation was that if infants were generally inclined to be apprehensive or distressed by parent absence, there would be more proximity seeking in the episodes following two parents' absence than in those following only one parent's absence. In correspondence to this expectation mean values on the proximity-seeking variable in episodes 5 and 11 were compared as a set to those for episodes 7 and 13 as a set; the means for episodes 5, 7, 11, and 13 were 2.54, 2.32, 2.85, and 2.39, respectively. The result of the contrast was not significant. The one-tailed confidence interval reflecting this finding is $\hat{\psi} = .68 - 1.06$ (Var. $\hat{\psi} = .18$, $\chi^2_{3:0.90} = 6.25$).

Inattention/avoidance was a second type of immediate reaction to parent reentry that was examined for indications of more intense reaction to the absence of both parents than to absence of only one. A specific normative pattern of response, however, was not predicted because of pilot study results calling into question what the affective basis of nonattentive behavior was, and the related question of influence of emotional reactions on behavior (Hansen, 1980). There were three possibilities. If infants were not particularly sensitive to being in the room without parents, then no significant difference in reaction to a parent's reentry after both parents' absence would be found. If most infants were apprehensive about parent absence and had no hesitance in expressing those feelings, then less inattention/avoidance would be expected for the episodes after both parents' absence. However, if infants were apprehensive but also had counteracting expressive inhibitions, then more inattentive/avoidant behavior would be in evidence in the episodes following both parents' absence. The contrast for inattention/avoidance was structured to make it possible to determine which of these three patterns prevailed. For the contrast reflecting this, means for episodes 5 and 11 as a set were compared to those for episodes 7 and 13 as a set; in order, mean values for episodes 5, 7, 11, and 13 were 2.55, 2.45, 2.36, and 2.62. The result of the contrast was not significant statistically; the related two-tailed confidence interval was $\hat{\psi} = -.17 \pm 1.19$ (Var. $\hat{\psi} = .18$, $\chi^2_{3:0.95} = 7.81$).

A comparison of infant contact-maintaining behavior across episodes was made to examine further the question of normative change in affiliative responses and precipitating conditions. However, the structure of the contrast was somewhat different from that for proximity-seeking and inattention/avoidance because of difference in the type of infant response measured by the variable. Contact-maintaining is thought to be an indicator of lingering as well as immediate affiliative reaction. Therefore, it was rated in more episodes than proximity-seeking and inattention/avoidance. Nonetheless, it was expected that contact-maintaining behavior would be greater in episodes immediately following both parents' absence, if parent absence precipitated affiliative behavior, than it was during episodes extending time with a parent in the playroom. For this reason the contrast was structured such that episodes 5 and 11 as a set were compared to episodes 6, 7, 8, 12, and 13 as a set; the respective mean values for episodes 5, 6, 7, 8, 11, 12, and 13 were 4.05, 3.54, 3.34, 4.05, 4.88, 4.16, and 3.86. Statistically the contrast was not significant, as can be seen in the one-tailed confidence interval obtained: $\hat{\psi} = 3.38 - 4.85$ (Var. $\hat{\psi} = 2.21$, $\chi^2_{6:0.90} = 10.64$).

Contact-resisting was the last type of behavior examined in a contrast comparison. In the attachment research literature it has been considered an indicator of ambivalent, problematic attachment and in that respect similar to behavior rated in the inattention/avoidance scale in this study. Like contact-maintaining, however, it is thought to be an indicator of delayed as well as immediate raction to a returning parent and was scored in two episodes following a parent's reentry for this reason. However, pilot study results (Hansen, 1980) gave reason to question the interpretability of ratings of contact resisting in research on Black infants. For this reason a comparison was made that paralleled the one for contact-maintaining in structure, but no projection of direction of effects was made. Statistically, the contrast was

not significant. The two-tailed confidence interval reflecting this result was $\hat{\psi} = -.48 \pm 5.27$ (Var. $\hat{\psi} = 2.21$, $\chi^2_{6;0.95} = 12.59$).

Table 5 lists the findings of the episode comparisons for all seven variables rated in selected episodes of the 13-part experimental play session procedure.

Table 5

Summary of Episode Comparison Results for Play Session Variables

Contrast Variable	$\hat{\psi}$	$\sigma^2_{\hat{\psi}}$	Z	Confidence Interval[a]	Decision ($\alpha = .05$)
Exploration (N=37, K=13)	797.01	167.04	4.77	797.01 - 719.45	sig.
Sociability (N=37, K=6)	-.14	1.14	-.13	-.14 ± 1.14	n.s.
Distress (N=37, K=4)	-1.16	.19	-2.69	-1.16 + 1.08	sig.
Inattention/Avoidance (N=37, K=4)	-.17	.18	.40	-.17 ± 1.19	n.s.
Proximity Seeking (N=37, K=4)	.68	.18	1.60	.68 - 1.06	n.s.
Contact Maintaining (N=37, K=7)	3.38	1.49	2.27	3.38 - 4.85	n.s.
Contact Resisting (N=37, K=7)	-.48	1.49	-.32	-.48 ± 5.27	n.s.

[a] $\chi^2_{K-1;.95}$ for two-tailed critical values and $\chi^2_{K-1;.90}$ for one-tailed critical values with Friedman nonparametric methods for repeated measures designs were used to calculate confidence intervals.

Discussion

The essential meaning of the findings of the two sets of tests that examined comparability of infant-mother and infant-father relationships is that mothers and fathers of Black infants like those represented by the sample foster roughly similar attachment and sociability responses in their young children. Contrary to the general attachment theory contention that one primary attachment figure elicits distinctive behavioral responses from an infant, the Black infants of this study responded similarly to the two most likely candidates for primary-attachment figure in their lives. This interpretation of the statistical findings is compatible with study participants' reports that fathers were highly involved in infant care, although not to the same degree as mothers, and that most infant-father relationships were very close in affective quality.

The one result that does not clearly support such a conclusion is absence of a statistically significant correlation of the variable pair contact-resisting-mother and contact-resisting-father. After close inspection of the descriptive statistics for the contact-resisting variables the finding of a nonsignificant correlation between mother-related contact resisting and father-related contact resisting was discounted as spurious. There were few instances in which any of the behaviors rated by that scale were observed and when observed contact resisting behavior commanded no more than a low rating on the scale of measurement. Thus the technical possibility or producing a significant correlation statistic was markedly reduced. Overall, it was concluded that the singular finding for the contact-resisting variable pair did not detract from the basic interpretation of the results of the correlational tests and the matched pair t-tests, that the study infants held comparable relationships to mothers and fathers as far as effects on attachment and sociability behaviors were concerned.

In addition to indicating importance of more than one parenting figure for infants' affective lives, the findings for tests comparing infant-parent figure relationships have implications for the developmental course of Black children's

socioemotional development. If a mother figure and an infant's relationship to her (or him) are eminent determinants of a developing person's lifelong predisposition in relations with affectively significant others, as attachment theory adherents contend, then two or more equivalent mother figures might provide more numerous, complex inputs to the personality formation process than is presently acknowledged. Thus, it would seem highly possible that many Black people, because of the multiplicity of intimate relationships that they enjoy in the earliest phases of life, develop an especially broad capacity for social relationships throughout life.

The probable existence of a socially enriching dimension of Black infant-parent relations indicated by the result of the tests comparing infant-mother and infant-father behaviors is given additional support by the results of the statistical tests to determine patterns of infant response across the 13 episodes of the experimental play session procedure. The finding that revealed a quartic trend in infant exploratory behavior was especially striking in this regard.

The overriding implication of the contrast examining dynamics of exploration is that the Black infants of this study were very sensitive to the presence of other people in the playroom. Both parent presence and stranger presence had effects on the infants' inclination to explore and engage the nonsocial, physical environment. Parent presence had a clearly positive effect, functioning as a security base facilitating venturing out behavior of the sort attachment theorists attribute to sound affective relations between infant and parent. If validity of the exploration-related contention of attachment theory is assumed, the finding provides normative evidence of positive dimensions of infant-parent attachments for Black infants. Moreover, the presence of more than one attachment figure added substantially to the exploration facilitating effects, demonstrating that two attachments are better than one for infants like those who participated in the study. The identification of a positive relationship between parent presence and exploration not only verifies the existence of positive features of attachments between Black infants and their parents, but corroborates the findings indication that Black infants can hold two functionally comparable attachment relationships simultaneously.

The suppressive effect of the student-stranger's presence on exploration is also clearly revealed by the quartic trend. As anticipated, the student's presence caused some curtailment of exploration when a parent was present, but when both parents were absent infant exploration plummeted to its lowest level. However, it is the sociability and distress contrasts in conjunction with the quartic trend that make it possible to more clearly differentiate infant responses to parents from those toward the student-stranger, and to determine whether infant responses to the student were characteristically sociable, fearful, or impossible to characterize.

The nonsignificant sociability contrast result indicated that there was no characteristic pattern of sociability behavior. This meant that as reactions to the student specifically, either sociability response patterns varied considerably for individual infants, or there was consistency of response to the student across episodes. Compared to the sociability behavior outcome, the statistically significant distress contrast suggests that parents were simply more potent as response-eliciting figures than was the student-stranger. Infants were more concerned with parents' comings and goings than with the student-stranger, as indicated by the higher level of distress shown when both parents had left the room than when one parent remained.

As an indicator of the infants' tendency to be distressed, however, the result of the distress contrast is misleading. To understand distress phenomena, it is important to keep in mind that the contrast confirmed a pattern of fluctuation in distress responses, but gave no information about the extent of distress when it occurred. Descriptive statistics in the original scale of measurement indicated that the overall level of distress for the sample was quite low; the mean was 1.76 on a seven-point scale of measurement, and 16 of the 37 infants exhibited no distress whatsoever. However, the comparison of episodes to detect changes in level of distress used rankings, instead of the original rating scores, which precluded extrapolations about amount of distress itself. Overall, the conclusion about the normative response pattern that can be drawn from this set of facts is that relatively more distress occurred when both parents were absent, even though the overall degree of distress exhibited was quite low.

As indications of infants' propensity for affiliative responses toward parents in an unfamiliar setting, the absence of statistically significant contrasts for proximity seeking and contact maintaining reveal that the infants were self-composed, in general. Having a similar implication, the absence of significance of the inattention/avoidance and contact-resisting contrasts suggests that infant responses to the play session experience were not primarily anxious. However, the absence of a statistically significant result of the contact-resisting contrast had an additional implication.

Considering that there was a very low incidence of behavior that could be rated on the contact-resisting scale, as discussed earlier, the absence of a significant contrast for episode comparison of ranked ratings on this variable tends to support the tentative conclusion drawn from the pilot study (Hansen, 1980), which was that contact resisting is a spurious variable for Black infants like those who were subjects in this study if it is to be interpreted as an indicator of ambivalent affect toward attachment figures.

Summary and Conclusions

Viewed from the perspective of integrative overview of the findings, the result for exploration stands out as an indicator of the nature of the relationships which Black infants, in general, hold to their parents. Parents provided emotional support of the sort that allowed infants to be open and inquisitive in confronting an unknown physical environment, in a way that an unfamiliar friendly person, even though Black, was incapable of doing. Moreover, either the infants' feeling residual effects of parent supportiveness when parents were out of the room or of frequency of encounters with new enviornments--a commonplace experience for most of the infants, according to parents' absence. The results of four of the contrasts gave no indications that infants, in general, experienced substantial apprehension or a heightening or parent affiliative impulses because of parent absence. The normative profile of the group that is suggested by this set of findings, characterizes the infants as self-assured with a sense of independence that was enhanced by parents' presence, but not undermined by parent absence.

Additionally, the study findings delineate patterns of Black infant attachment that differ in some significant respects from those that attachment theory and study of White middle-class infants would lead one to expect. Moreover, culture as opposed to psychopathology is clearly indicated as the probable cause of Black infants' distinctiveness. From a demographic point of view, the infants in the study had the least risk of all Black infants of incurring developmental anomalies. For this reason, unless one wanted to contend that all of Black society is pathologically inclined, it could not be assumed that substantial psychopathology was present in the sample. Rather, family life patterns for Black infants with working parents generate a complex social context of infant development that is markedly different from that of the White American ideal of an infant world overwhelmingly defined by a housewife/mother who makes a career of giving her infant undivided attention.

The major conclusion ensuing from study results is that Black infants develop healthy, adaptive patterns of attachment behavior for the social niche in which they live. Parents, as well as other family members and friends, are required to be flexible in their role conception and performance to meet infants' practical and affective needs. Infants, in turn, develop and demonstrate considerable flexibility in relationships to parents through comparability of attachments to them. In addition, the routines of Black family life bring infants into contact with a variety of people and settings on a daily basis. Compatible with this, Black infants develop a capacity to be sensitive to protective supportiveness of parental presence, without becoming automatically apprehensive or fearful when parents are absent. Overall, the complementarity of environmental demands and emerging patterns of infant parent attachment identified as normative in this study, should be considered evidence of psychologically sound infant-parent relations among nonindigent Blacks.

From the standpoint of clinical practice, the norms delineated in this study challenge the validity of use of White middle-class norms in evaluating Black infants of low income and/or high risk backgrounds. The premises of this study openly acknowledge that there are probably substantial differences between the context of infant life for Black children with adult, employed mothers and those from socioeconomically distressed backgrounds. Nonetheless,

it is concluded that the behavior patterns of children from the same racial and cultural backgrounds growing up under auspicious circumstances provide better criteria for evaluating the functioning of socioeconomically distressed Black children than those of White middle-class children.

Mainstream psychology has produced and promoted many psychological assessment instruments with norms developed from research on White subjects that were purported to be valid for use with Blacks. Such instruments have been used extensively with Black adults and postinfant-aged children. The impending problem is that such dubious practice will be extended downward on the age scale to Black infants, and negatively affect Black life in its beginning phase. The results of the reported research underscore the critical need for empirical research to delineate Black behavioral patterns so that fair and valid methods of psychological assessment can be devised, even for the youngest members of the Black community.

References

Ainsworth, M. D. S. Infancy in Uganda: Infant care and the growth of love. Baltimore: Johns Hopkins University Press, 1967.

Ainsworth, M. D. S. Object relations, dependency and attachment: A theoretical review of the infant-mother relationship. Child Development, 1969, 40(4), 969-1025.

Ainsworth, M. D. S., & Bell, S. M. Attachment, exploration and separation: Illustrated by the behavior of one-year-olds in a strange situation. Child Development, 1970, 41(1), 49-67.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers, 1978.

Beckett, J. O. Working wives: A racial comparison. Social Work, 1976, 21(6), 463-471.

Bowlby, J. Attachment and loss, Vol. I: Attachment. New York: Basic Books Publishers, 1969.

Clarke-Stewart, K. A. Interactions between mothers and their young children: Characteristics and consequences. Monographs of the Society for Research in Child Development, 1973, 38(6-7), (Serial No. 153).

Grossman, A. S. More than half of all children have working mothers. Monthly Labor Review, 1982, 105(2), 41-43.

Hansen, J. F. Children's attachments to mother figures and the social development of Black infants and young children: An exploratory study. Psychology Department, University of California-Berkeley, 1980.

Jackson, J. F. A social ecological study of the Black infant with a working mother: Emergent attachments, sociability, and cognitive maturity. Doctoral dissertation, University of California-Berkeley, 1983.

Kotelchuk, M. The infant's relationship to the father: Experimental evidence. In M. E. Lamb (Ed.), The role of the father in child development. New York: John Wiley & Sons, 1976.

Marascuilo, L. A., & McSweeney, M. Nonparametric and distribution-free methods for the social sciences. Monterey, CA: Brooks/Cole Publishing Co., 1977.

McAdoo, H. P. Black mothers and the extended family support network. In H. P. McAdoo (Ed.), The Black woman. Beverly Hills, CA: Sage Publications, 1980.

Sameroff, A. J., Seifer, R., & Zax, M. Early development of children at risk for emotional disorder. Monographs of the Society for Research in Child Development, 1982, 48(1), (Serial No. 199).

Savage, J. E., Adair, A. V., & Friedman, P. Community-social variables related to Black parent-absent families. Journal of Marriage and the Family, 1978, 40(4), 779-785.

ERRATUM NOTE: The third and fourth sentences in the first paragraph under the subheading Summary and Conclusions should read: It is possible that the infants felt residual effects of parent support when parents were out of the room. It is also possible that frequent encounters with new environments -- a commonplace experience for most of the infants according to parents' reports -- caused the infants to retain composure during parents' absence.